

**REMARKS****I. Claim Amendments**

Claims 3, 4, 12, 16, 17, and 20 are amended.

**II. Claim Rejections Under 35 U.S.C. § 112**

Claim 4 was rejected for lack of antecedent basis for "said selected clocking frequency."

Upon review of the claims, it was found that claim 3 also is lacking antecedent basis for this term. Accordingly, claims 3 and 4 have been amended to recite "first clocking frequency" instead of "selected clocking frequency." Applicant submits that this amendment overcomes the 35 U.S.C. § 112 rejection.

**III. Claim Rejections Under 35 U.S.C. § 103**

The Examiner rejected claims 3, 4, 6, 7, 10 and 12-20 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 5,459,607, issued to Fellows et al. ("Fellows"), in view of U.S. Patent 5,491,474, issued to Neidlinger et al. ("Neidlinger"), and further in view of U.S. Patent No. 5,719,904, issued to Kim ("Kim").

**A. Independent claims 3, 7, 12, 16, 17 and 20**

With respect to the independent claims 3, 7, 12, 16, 17 and 20, the Applicant respectfully disagrees with the rejection and respectfully submits that the rejection is improper because both Fellows and Neidlinger teach away from the claimed inventions, and both Fellows and Neidlinger do not provide a suggestion or motivation to combine to arrive at the claimed inventions.

First, the rejection is improper because Neidlinger teaches away from the claimed inventions of independent claims 3, 7, 12, 16, 17 and 20. Each of these independent claims include limitations for transmitting data over an optical fiber in a first direction in a first data code at a selected wavelength of light (e.g., NRZ data) and transmitting data over the optical fiber in a second direction in a second data code at the selected wavelength of light (e.g., Manchester data). These limitations were present in claims 3 and 7 and added by amendment to claims 12, 16, 17 and 20.

Neidlinger states that for decoupling the electro-optical transducer LD and opto-electrical reception transducer PD, and also for directional separation, a wavelength-division multiplexer (WDM) is inserted between the associated light waveguide subscriber line OAL-OB and both the opto-electrical reception transducer PD and electro-optical transmission transducer LD of each station.<sup>4</sup> Col. 3, ll. 54-61 (emphasis added). Thus, the system in Neidlinger transmits in the upstream direction at a first wavelength and in the downstream direction at a second wavelength. Therefore, Neidlinger teaches that bidirectional communication is to be accomplished by transmitting at a first wavelength in a first direction and transmitting at a second wavelength in the second direction. Neidlinger thus specifically teaches away from the claimed inventions of claims 3, 7, 12, 16, 17 and 20.

Second, the rejection is improper because Fellows also teaches away from the claimed inventions of independent claims 3, 7, 12, 16, 17 and 20. The Office Action correctly summarizes Fellows in that Fellows teaches transmitting Manchester data in first and second directions over a signal optical fiber at the same wavelength. However, Fellows specifically teaches that the data is to be transmitted in both directions using Manchester encoding. Fellows,

col. 3, ln. 62 - col. 4, ln. 60. Therefore, Fellows also specifically teaches away from the claimed inventions of claims 3, 7, 12, 16, 17 and 20.

Third, there is no motivation to combine Fellows and Neidlinger when these references are considered as a whole. Each of the Fellows and Neidlinger must be considered as a whole, including portions that would lead away from the claimed invention. W.L. Gore & Associates v. Garlock, Inc., 721 F.2d 1540 (Fed. Cir. 1983); MPEP 2141.02, pg. 2100-122 (8<sup>th</sup> Ed., Rev. 1, Feb. 2003). The Applicant respectfully submits that no motivation to combine exists when (1) Neidlinger is directed to a bidirectional WDM system having two encoding schemes, which teaches away from the claimed invention and also teaches away from Fellows; and (2) Fellows is directed to a bidirectional system having a single encoding scheme and at a single wavelength, which teaches away from the invention and also teaches away from Neidlinger. Indeed, it appears that the rejection is based on impermissible hindsight rather than a motivation to combine from the references.

For all of the above reasons, the Applicant respectfully submits that the obviousness rejection of claims 3 and 7, 12, 16, 17 and 20, and all claims depending therefrom, be withdrawn.

#### **B. Independent Claim 21**

Claim 21 also recites limitations for transmitting an NRZ data stream having a first clocking frequency from a first location to a second location by said optical fiber using a carrier having a selected wavelength of light and transmitting a Manchester coded data stream from said second location to said first location by said optical fiber at said selected wavelength of light. Accordingly, the Applicant submits that the rejection of claim 21 is improper for the same

reasons that the rejection of claims 3, 7, 12, 16, 17 and 20 is improper. Withdrawal of the rejection is respectfully requested.

#### IV. Conclusion

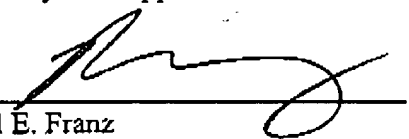
The Applicant respectfully submits that all pending claims are in condition for allowance and respectfully requests that the Examiner issue a Notice of Allowance in due course.

The Commissioner is hereby authorized to charge any additional fees and credit any overpayment associated with this response to Jones Day Deposit Account No. 501432, ref: 766726-610049.

Respectfully submitted,

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